Observations of Comet e 1889 (Davidson), made at the Melbourne Observatory with the South Equatorial and Dark-field Micrometer. Observer: P. Baracchi.

(*Communicated by R. L. J. Ellery, F.R.S., Government Astronomer.*)

Date.	Melbourne Mean Time.	Comet − Star. Δα	Comet − Star. ΔN.P.D.	No. of Meas.	Comet Apparent α	Log (p × Δ).	Comet Apparent N.P.D.	Log (p × Δ).	Red. to App. Place.	Star α 1889·0.	Star. N.P.D. 1889·0.	
1889	h m s	m s	′ ″		h m s		° ′ ″		s ″	h m s	° ′ ″	
July 23	8 54 43·2	+5 23·88	−15 4·0	3	12 46 10·98	+9·698	122 27 35·7	+0·467	+0·37 +11·2	12 40 46·73	122 42 28·48	(*a*)
25	9 53 16·7	−3 15·39	− 2 27·9	1	13 11 9·06	+9·704	116 47 15·0	+0·603	+0·58 + 9·0	13 14 23·87	116 49 33·9	(*b*)
26	11 30 36·0	+8 6·10	− 8 58·8	2	13 23 8·26	+9·708	113 44 25·9	+0·726	+0·51 + 8·0	13 15 1·65	113 53 16·7	(*c*)
29	9 33 51·8	+2 38 93	− 4 19·9	5	13 52 15·94	+9·637	105 31 36·7	+0·645	+0·71 + 4·5	13 49 36·30	105 35 52·1	(*d*)
29	9 52 49·6	−6 49·39	−18 48·2	1	13 52 22·56	+9·654	105 29 30·2	+0·659	+0·77 + 4·3	13 59 11·18	105 48 14·1	(*e*)
30	7 21 31·6	−13 13·74	− 6 47·4	3	14 0 19·23	+9·363	103 5 6·7	+0·595	+0·84 + 3·2	14 13 32·13	103 11 50·9	(*f*)
Aug. 1	9 53 18·1	+1 7·19	+ 9 40·1	7	14 17 18·08	+9·631	97 44 39·8	+0·700	+0·81 + 1·0	14 16 10·08	97 34 58·7	(*g*)
2	9 16 26·1	+2 51·66	−10 13·7	5	14 24 27·24	+9·584	95 26 56·7	+0·704	+0·81 + 0·2	14 21 34·77	95 37 10·2	(*h*)
2	10 9 48·9	−0 30·23	+ 3 25·1	7	14 24 43·35	+9·640	95 21 56·3	+0·716	+0·83 0·0	14 25 12·75	95 18 31·2	(*i*)
18	6 59 46·9	+0 41·29	+ 2 17·7	10	15 40 21·69	+9·155	72 25 16·4	+0·861	+0·88 − 9·7	15 39 39·52	72 23 8·4	(*j*)

Authorities.—(*a*) Stone 7058. (*b*) $\frac{1}{3}\left(\text{Yarnall } 5515+2 \text{ Gould}\frac{\text{xiii.}}{528}\right)$ Stone 7314. (*d*) $\frac{1}{4}$ (Lal. 25596 + 3 [O. A. 13247]).
(*e*) Yarnall 5816. (*f*) Yarnall 5911. (*g*) Armagh 1668. (*h*) $\frac{1}{2}$ (Gr. 7 year Cat. 1864 + Grant 3577). (*i*) Yarnall 5990. (*j*) 26 *Serpentis*. Melbourne Transit Circle.

Remarks.

July 23.—☄ a bright object. Sharp stellar nucleus 5th or 6th mag. Tail south following more than 30′ long. Diameter at head 4′ or 5′. Easily visible to the naked eye. Bisections of the nucleus easy.

July 25.—Only one measure taken through a short break in the clouds. Same appearance as on July 23.

July 26.—Overcast in early evening. ☄ low, observed through thick haze. Bisections difficult.

July 29.—Clouds interfering. ☄ observed through occasional breaks. Bisections easy.

July 30.—Nucleus diffused. Bad definition. Bisections unsatisfactory. Comet a little fainter. Nucleus no brighter than 6th mag. Tail south following about 30′ long. Still easily visible to the naked eye.

August 1.—Same appearance as on July 30. Bisections easy.

August 2.—Same appearance. Good bisections. Still visible to the naked eye.

August 18.—☄ much fainter. Nucleus quite diffused. Elongated nebulosity south following, about 20′ long. Bisections satisfactory.

Parabolic Elements Computed from Observations of July 23, 26, and 29.

T 1889, July 19·28958 G.M.T.

ω 14° 7′ 33″
☊ 286 8 17 } M.E. 1889·0
i 66 1 53

$\log q$ 0·016927

$(O-C)\begin{cases} \cos\beta\,\Delta\lambda = -1''\cdot3 \\ \Delta\beta = +2''\cdot0 \end{cases}$

Observations of Comet e 1889 (*Davidson*), *made at Sydney Observatory with the* 11½*-inch Equatorial and Filar Micrometer.*

(*Communicated by H. C. Russell, B.A., F.R.S., Government Astronomer.*)

Date. 1889.	Sydney M.T. h m s	Star.	No. of Comp.	Comet—Star Δ R.A. m s	Comet—Star Δ N.P.D. ′ ″	Comet's Apparent R.A. h m s	Comet's Apparent N.P.D. ° ′ ″	Log. $p\Delta$ for R.A.	Log. $p\Delta$ for N.P.D.	Obs.
July 22	8 51 47	1	4	−4 30·86	−15 36·87	12 32 43·30	125 8 42·31	9·736	0·348	R.
22	10 37 55	2	2	+2 45·95	+ 8 1·57	12 33 42·10	124 57 18·29	9·777	0·616	Pk.
23	7 27 43	3	15	+4 23·73	− 2 26·76	12 45 10·87	122 40 12·22	9·590	0·069	R.
23	8 58 16	4	10	+1 17·32	−53 48·25	12 45 57·67	122 30 0·22	9·720	0·386	R.
24	7 40 0	5	12	+2 9·50	−19 35·17	12 57 54·91	119 54 39·56	9·585	0·192	R.
24	8 58 25	6	9	+1 49·44	+ 0 52·91	12 58 34·18	119 45 32·22	9·699	0·408	R.
24	8 58 25	7	9	−2 59·90	− 5 8·24	12 58 34·31	119 45 28·80	9·699	0·408	R.
26	9 0 33	8	1	+4 42·00	− 3 55·62	12 21 49·29	114 5 25·74	9·663	0·467	R.
26	9 0 33	9	1	+4 32·80	+ 0 46·87	13 21 49·40	114 5 25·88	9·663	0·467	R.
26	10 11 10	9	2	+5 4·24	− 7 43·17	13 22 20·84	113 56 55·84	9·718	0·578	R.
29	7 19 13	10	5	−3 34·32	+ 2 41·02	...	...	9·396	0·472	Pk.
29	7 19 13	11	5	−7 56·66	+ 1 38·28	13 51 15·27	105 49 57·22	9·396	0·472	Pk.
29	9 48 29	12	6	−9 0·19	− 6 55·61	13 52 11·86	105 32 47·54	9·669	0·595	R.
29	9 53 37	13	5	−6 54·00	+ 2 42·98	13 52 13·96	105 32 14·45	9·673	0·599	R.

The observers were R.=Russell; Pk.=Pollock. The reductions have been made by Mr. Pollock.